



A comment about markers of severity of acute appendicitis

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The manuscript by Vargas-Rodríguez et al.⁽¹⁾ entitled *Markers of Severity of Acute Appendicitis: Diagnostic Test Study*, aimed to determine the possible markers of severity in acute appendicitis for diagnostic purposes and for the timely management of appendicitis and avoid possible complications, has been studied with great interest. A total of 239 patients were included, and the study concluded that the elevation of C-reactive protein (CRP) and neutrophil percentage > 85% are the acute phase reactants with the best diagnostic characteristics.

In their study, Delgado-Miguel et al.⁽²⁾ included 1269 patients undergoing appendectomy and concluded that the neutrophil-lymphocyte index (NLI) can be considered the preoperative parameter with the highest sensitivity (84.2%) and specificity (83.8%) for predicting the absence of appendicitis in cases where there is any clinical suspicion. Furthermore, they point out that it is a simple and low-cost screening tool that should always be considered to avoid negative appendectomies.

For his part, in his systematic review, Dale⁽³⁾ emphasizes that procalcitonin (PCT) does not help diagnose acute appendicitis, but he did identify higher rates of PCT in patients with complicated acute appendicitis. Statistically, the PCT level was significantly different ($p < 0.05$) under these two conditions.

In their meta-analysis, Krishnan et al.⁽⁴⁾ analyzed mean platelet volume (MPV) levels and found that there was no significant difference in levels between children with acute appendicitis compared to healthy controls, which demonstrated the low usefulness of MPV for the diagnosis of this clinical condition. In contrast, in their meta-analysis, Tullavardhana et al.⁽⁵⁾ clearly report that lower MPV values can be a marker to predict acute appendicitis but failed to demonstrate a prediction for complicated acute appendicitis and suggest continuing to use clinical scoring systems.

Ayeni et al.⁽⁶⁾ support the use of neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR) to stratify the risk of children with confirmed appendicitis in settings with limited economic resources or where the necessary diagnostic tests are not available. For NLR, they found a sensitivity of 70.3% and specificity of 70%, with a positive predictive value (PPV) of 84.6% and a negative predictive value (NPV) of 50.2%. For PLR, they found a sensitivity of 64% and specificity of 61%, with a PPV of 79.3% and NPV of 42%. They concluded that these markers are synergistic and reliable in predicting complicated acute appendicitis.

In conclusion, the approach to acute appendicitis represents a challenge due to the wide range of possibilities inherent to its symptoms. Nevertheless, the number of eva-

luations and analyses of alternative methods that allow more accurate decisions and more appropriate treatments is increasing. Therefore, it is worth highlighting the importance of carrying out studies such as these, which charac-

terize populations to extrapolate to samples of similar characteristics and, through the analysis of severity markers in acute appendicitis, establish guidelines for a timely diagnosis and reduction of complications.

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